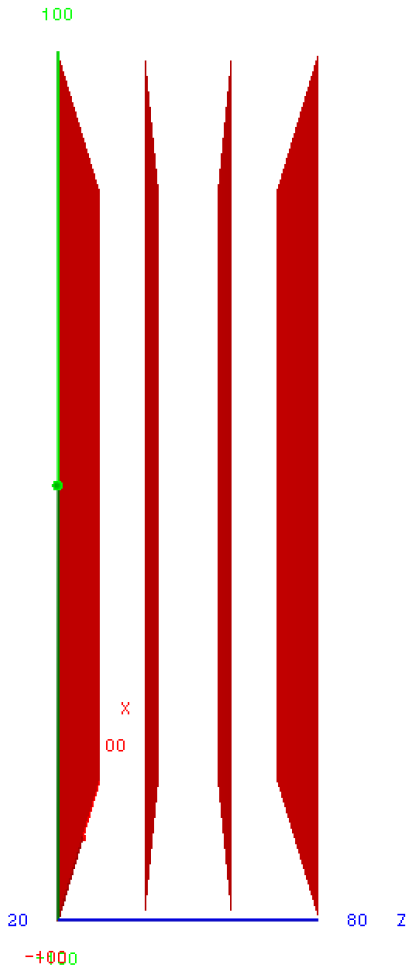
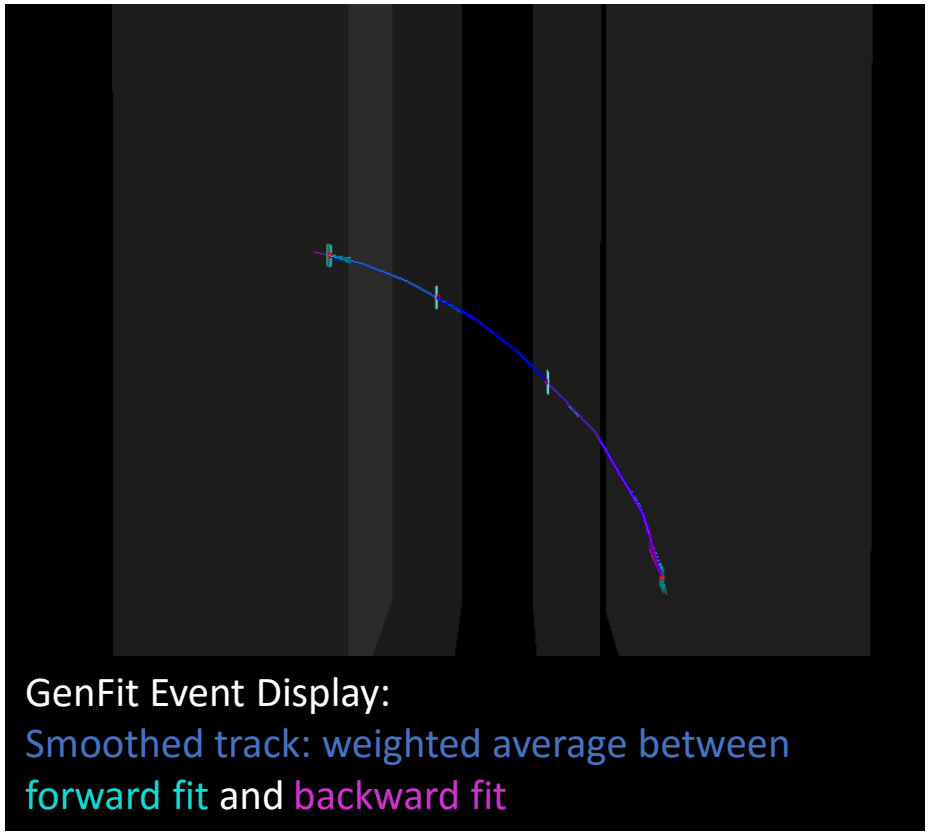
- Discussed with Jin:
  - The fsPHENIX G4 geometry could be ported to TGeo.
  - RKTrackRep is already fully functional.
  - So we could try to use it for now to speed things up
- Studied the structures/interfaces of GenFit. And set up a standalone test.

Detector:
4 tesla, x-direction
1 micro silicon layers



KalmanFilter result event display



GenFit Event Display:
Smoothed track: weighted average between forward fit and backward fit

Results:

Input:
pos(0,0,0) cm
mom(0,0,1) GeV
Cov: 0.1^2

```
DEBUG: extrapolateToPoint(0,0,0)
genfit::MeasuredStateOnPlane my address 0x7ffec1f5be10 my plane's address 0x3e76de0; use count: 2
 state vector:
Vector (5)  is as follows

     |       1  |
-----------------
   0 |1
   1 |0
   2 |0
   3 |0
   4 |0

 covariance matrix:
5x5 matrix is as follows

     |      0    |      1    |      2    |      3    |      4    |
-----------------------------------------------------------------
   0 |       0.01           0           0           0           0
   1 |          0        0.01           0           0           0
   2 |          0           0        0.01           0           0
   3 |          0           0           0        0.01           0
   4 |          0           0           0           0        0.01

 defined in plane DetPlane: O(0, 0, 0) u(-1, 0, 0) v(0, -1, 0) n(0, 0, 1)
 3D position: TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,0.000000) (rho,theta,phi)=(0.000000,0.000000,0.000000)
 3D momentum: TVector3 A 3D physics vector (x,y,z)=(0.000000,0.000000,1.000000) (rho,theta,phi)=(1.000000,0.000000,0.000000)
```